

Appl. No.: 10/734,686
Page 6

REMARKS/ARGUMENTS

This Amendment is responsive to the Office Action mailed June 6 2006, in which claims 1-11, 13, 15-18, 20, 24-36, and 39-46 are pending. Claims 5, 13, 24, 25, and 45 are withdrawn. Claims 1-4, 6-11, 15-18, 26-36, and 39-44 stand rejected. By this response, claims 1-3, 7, 15, 27, 29-31, 43, and 46 are amended. Claims 12, 14, 16-19, 21-23, and 37-42 have been cancelled. Entry of this amendment and reconsideration and allowance of this application are requested.

§ 103 Rejections

The Office Action rejected claims 1-4, 6-11, 15-18, 26-36, and 39-44 as unpatentable under 35 U.S.C. § 103(a) over WO 93/21492 to Patchett and U.S. Patent No. 5,195,252 to Harpell. The Patchett reference teaches a sheet material comprising a relatively flexible layer and a layer of relatively rigid interfitting and interlocking plates attached to the relatively flexible layer. Page 2, lines 1-6. The Harpell patent teaches a multilayered fiber-containing article comprising a flexible substrate and a plurality of rigid penetration resistant non-metallic planar bodies mechanically affixed to a surface of the substrate. Col. 3, lines 7-11.

By this response, claim 1 is amended to more particularly point out and distinctly claim the invention. As amended, claim 1 recites a fabric assembly comprising "non-overlapping plates comprising a polymeric resin arranged in a repeating pattern and printed on, affixed to, and permeating the top surface." The plates have a "substantially uniform thickness of approximately 5 to 40 mils" and "define a plurality of continuous gaps having an approximately uniform width between adjacent plates."

Neither the Patchett reference nor the Harpell patent teaches or suggests a fabric assembly comprising a flexible substrate having a plurality of non-overlapping plates printed on the top surface. Nor do either of these references teach or suggest plates permeating the top surface of the substrate. The Patchett reference teaches cutting the plates as separate elements from a sheet of material or separately forming the plates using an injection molding process. Page 8, lines 23-26. Only after this separate forming are the plates applied using an adhesive or rivets. Page 4, line 10-13. Similarly, the Harpell patent teaches cutting the planar bodies 16 from panels of material. Col. 18, lines 27-41. The planar bodies 16 are subsequently attached to a substrate layer 14 using adhesives, bolts, screws, staples, mechanical interlocks, or stitching.

Appln. No.: 10/734,686
Page 7

Col. 12, lines 14-30, col. 13, lines 18-24. Thus, the Patchett and Harpell references do not teach or suggest plates printed on or permeating the top surface of a flexible substrate.

The claimed invention provides several advantages over the cited references. The printed plates do not require a separate adhesive layer, and can therefore be efficiently manufactured. Furthermore, the printed plates form a relatively strong bond to the substrate, resulting in a relatively high resistance to delamination. The printed plates allow for selection of plate dimensions, such as the plate thickness, gap width, and plate diameter. In light of the differences between the claimed invention and the associated advantages, claim 1 is not obvious in view of the Patchett and Harpell references. The Applicant respectfully requests withdrawal of the rejection and allowance of claim 1.


Claims 2-4, 6-11, 15-18, 26-36, and 39-44 also stand rejected under 35 U.S.C. § 103(a) over Patchett in view of Harpell. By this response, claims 16-18 and 39-42 are cancelled. Claims 2-3, 7, 15, 27, 29-31, 43, and 46 are amended to reflect the amendments made to claim 1. Claims 2-4, 6-11, 15, 20, 26-36, 43-44, and 46 depend directly or indirectly from claim 1 and therefore are patentable for at least the reasons given with respect to claim 1. Applicant respectfully requests the allowance of claims 2-4, 6-11, 15, 20, 26-36, 43-44, and 46.

In conclusion, all of the claims remaining in this application are in condition for allowance. The Applicant respectfully solicits a prompt notice to that effect. If there are any remaining questions, the Examiner is requested to contact the undersigned at the number listed below.

Respectfully submitted,

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